

fw



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,259	10/26/2000	Antulio Tarazona	99B140	3861

20411 7590 04/09/2003

THE BOC GROUP INC
100 MOUNTAIN AVENUE
MURRAY HILL
NEW PROVIDENCE, NJ 07974-2064

EXAMINER

KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
----------	--------------

3753

12

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,259

Applicant(s)

TARAZONA ET AL.

Examiner

Ramesh Krishnamurthy

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3 - 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☒ Claim(s) 7-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This office action is responsive to amendment filed 01/31/03.

Claims 1 and 3 – 11 are pending.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Melnick (US 3,891,000).

Melnick discloses (Fig. 4) a valve (17) comprising a housing having an inlet (the end of passageway facing the interior of cup-shaped portion (13)) and the outlet (at the end of passageway opposite to the inlet), a passageway in a valve seat (53) between the inlet and the outlet, and means including a valve assembly (49) moveable between an open position (Fig.1) and a closed position (Fig. 2) in which the valve assembly (49) is seated on the valve seat (53) in which magnetic means (55) is provided for biasing the valve to a closed position, wherein at least a portion of the valve assembly (49) is in the form of or incorporates a permanent magnet (51, see col. 4, lines 13 – 18) and a further magnet (55) is located adjacent the valve seat (53), and said valve assembly (49) is configured to transition between the open and closed positions based on a pressure differential arising from said fluid between said inlet and said outlet (col. 4, lines 27 – 31 and Col. 2, line 65 - Col. 3, line 15).

Regarding claim 3, it is noted that the further magnet (55) is disclosed to be a permanent magnet.

Art Unit: 3753

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach (US 3,026,903) in view of Ruppright (US 2,949,931).

Roach discloses a valve (10) comprising a housing (11) having an inlet (at 21) and an outlet (at 12) with a passageway (13, 20) therebetween, means including a valve assembly (41, 45) moveable between open and closed positions with respect to a valve seat (23) in which magnetic means are provided for biasing the valve assembly towards the closed position (Col. 5, lines 29 – 37) wherein at least a portion of the valve assembly (41) is in the form of or incorporates a permanent magnet with the valve assembly configured to transition between open and closed positions based on pressure differential between said inlet and outlet (Col. 4, lines 20 – 26).

The patent to Roach discloses the claimed invention with the exception of explicitly disclosing a further magnet adjacent to the valve seat.

Ruppright discloses that it is known in the art to provide a magnet (21) adjacent the valve seat (26) for the purpose of providing a positive seating in the valve closed position, with such a need having been articulated by Roach (Col. 5, lines 29 – 37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Roach a further magnet adjacent the valve seat as taught by Ruppright for the purpose of providing a positive seating in the valve closed position, with such a need having been articulated by Roach (Col. 5, lines 29 – 37).

Regarding claim 3, it is noted that the magnet (21) in Ruppright is a permanent magnet.

Regarding claim 4, it is noted that the at time the invention was made, it would have been an obvious matter to a person of ordinary skill in the art to have used an electromagnet in place of the permanent magnet since the examiner takes Official Notice of the equivalence of Permanent magnet and an Electromagnet in providing a magnetic biasing force and selection of one of these two known magnetic sources to provide a biasing force would be within the level of ordinary skill in the art. It is further noted that the applicant fails to disclose the importance/reason(s) for the further magnet being an electromagnet.

Regarding Claim 6, it is noted that Roach anticipates the use of a resilient seating ring (Col. 5, lines 24 – 29). Such a resilient seating ring would clearly have a spherical contour to provide proper seating surface for the ball (45). To provide a

Art Unit: 3753

spherical sealing pad on the valve (45) or in the seat is a mere reversal of parts which the courts have held to be an expedient that is obvious to one of ordinary skill in the art. *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955).

6. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Roach and Ruppright as applied to claims 1, 3, 4 and 6 and further in view of Grittmann et al. (US 5,515,223).

The device according to the combination of Roach and Ruppright discloses the invention claimed with the exception of disclosing the valve seat to be made of a magnetic material.

Grittmann et al. discloses a check valve in which (Fig. 4, Col. 4, lines 29 – 39) a valve seat (25) made of magnetic material is provided to ensure that the magnetic field on the valve element is strong enough to attract the valve back to the valve seat when the opposing force due to fluid flow is minimal.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the device according to the combination of Roach and Ruppright a valve seat made of magnetic material for the purpose of ensuring that the magnetic field on the valve element is strong enough to attract the valve back to the valve seat when the opposing force due to fluid flow is minimal as recognized by Grittmann et al.

7. Claims 7 – 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rosenlund discloses a magnetic valve in which the magnet is housed in the valve cap. Wagner and Oakes disclose magnetic check valves.

Response to Arguments

9. Applicant's arguments with respect to claims 1 and 3 - 11 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

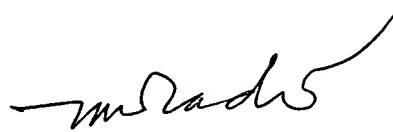
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Buiz, can be reached on (703) 308 - 0871. The fax phone number for the organization where this application or proceeding is assigned is (703) 308 - 7765.

Art Unit: 3753

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 0861.

Ramesh Krishnamurthy
Examiner
Art Unit 3753
April 3, 2003



Michael Powell Buiz
Supervisory Patent Examiner
US Patent & Trademark Office

4/4/03